We claim:

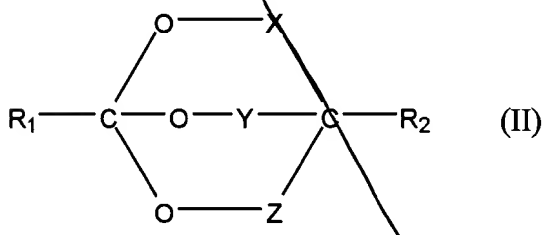
1. A coating composition comprising at least one BOE group and at least one other functional group represented by the following formula I

$(A)_x$-B-$(C)_y$ (I)

wherein

x and y are independently selected from 1 to 10;

A has the structure according to the following formula II



(II)

wherein

X and Z are independently from each other selected from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

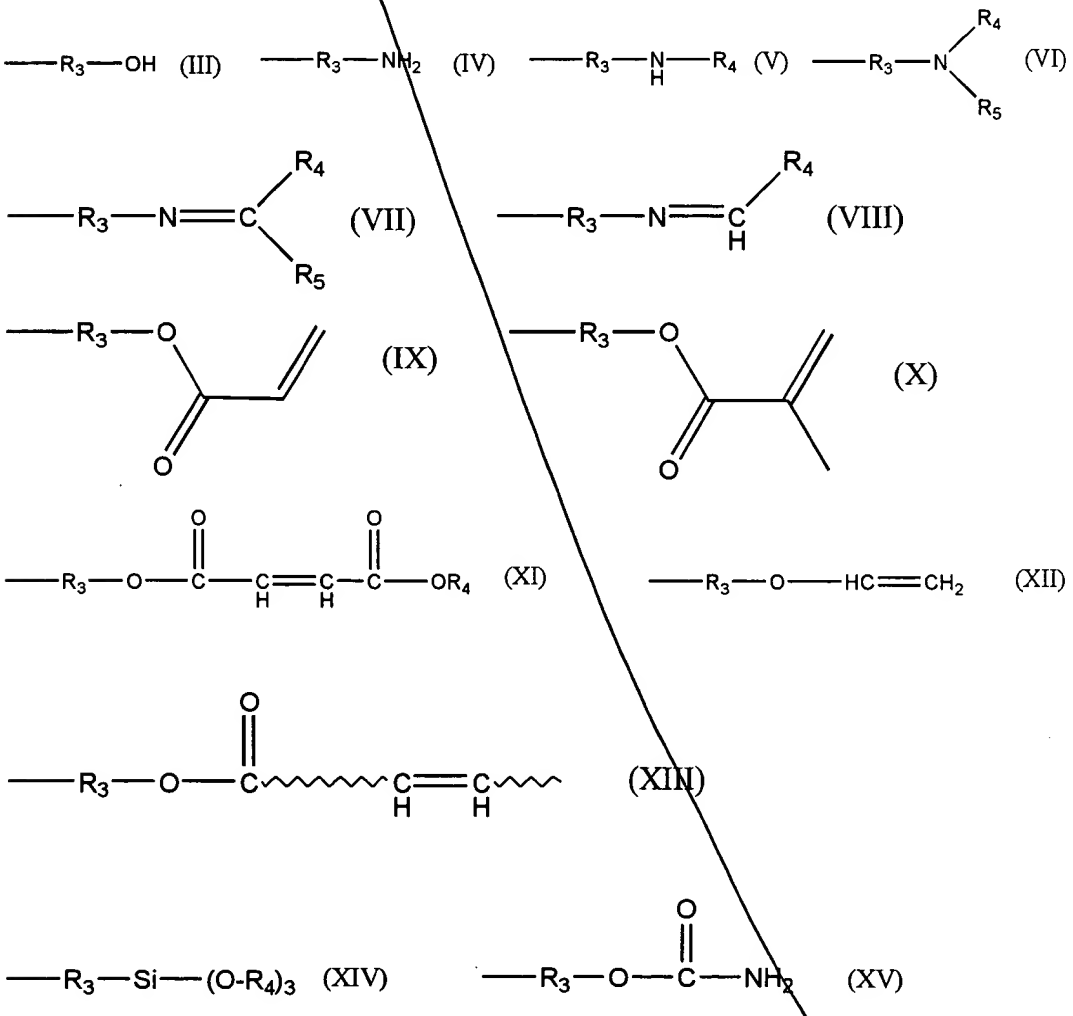
Y is nothing or is selected independently of X and Z from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

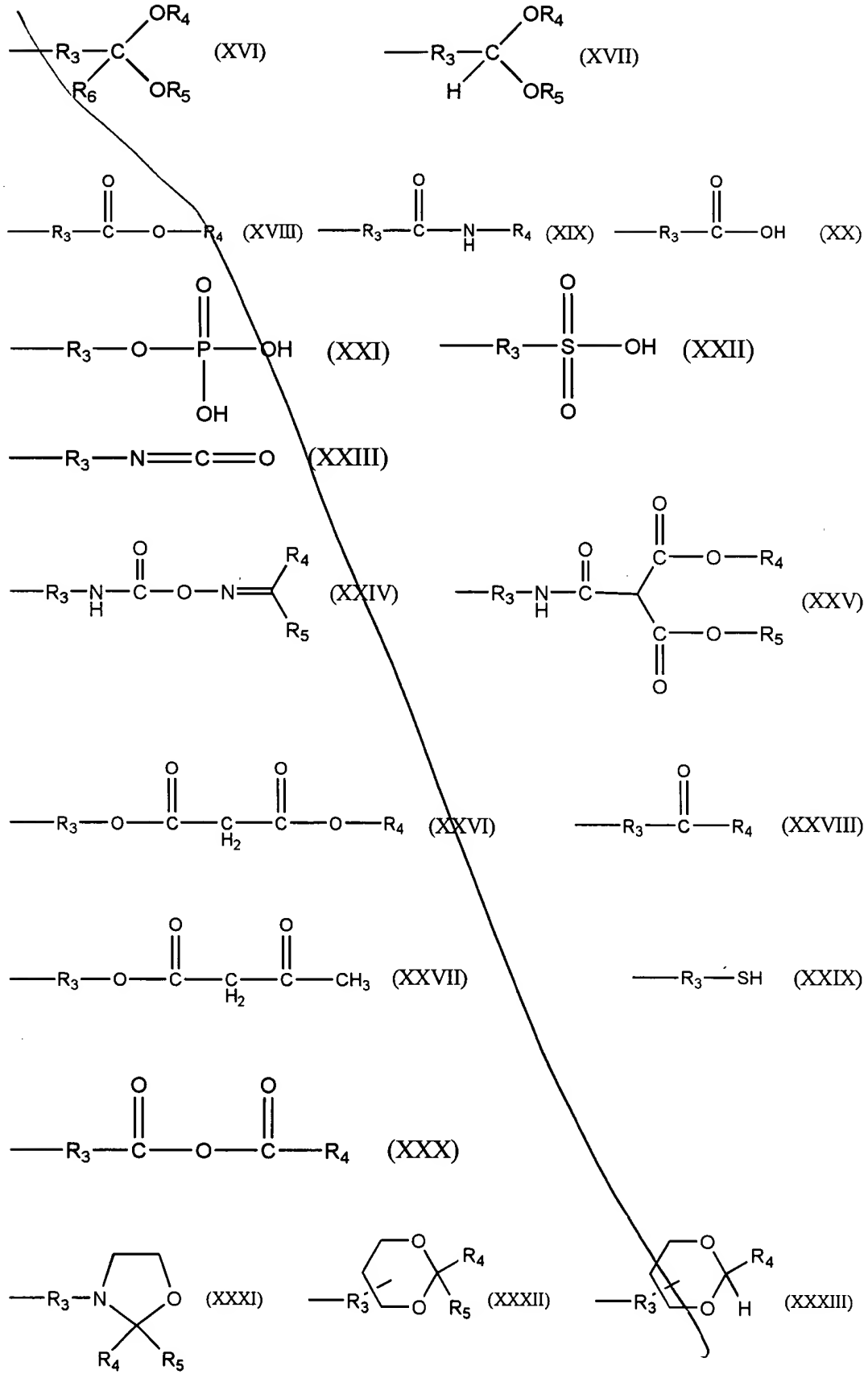
one of R_1 and R_2 is selected from the group of monovalent radicals comprising hydrogen, hydroxyl, alk(en)yl groups comprising 1-30 carbon atoms which may be linear or branched and may optionally contain one or more hetero atoms and groups selected from the group of oxygen, nitrogen, sulphur, and ester;

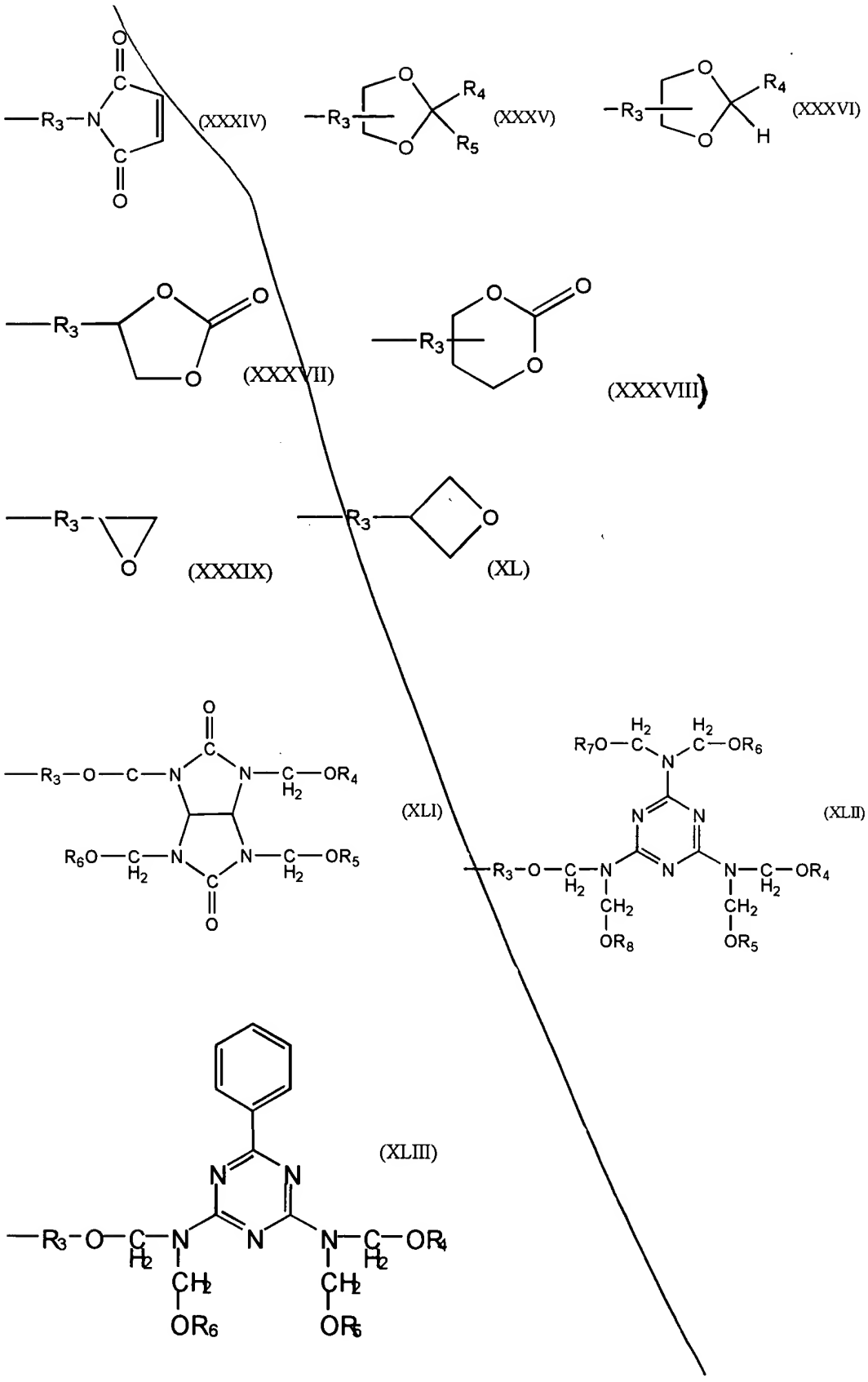
the other of R_1 and R_2 is selected from the group of divalent radicals comprising alk(en)ylene groups having 1-10 carbon atoms which groups may be linear or branched and contain one or more hetero atoms and groups selected from the group of oxygen, nitrogen, sulphur, and ester;

B is selected from the group of divalent radicals comprising aromatic, aliphatic, cycloaliphatic, and araliphatic hydrocarbon groups having 1-40 carbon atoms which groups may be linear or branched and contain one or more hetero atoms and groups selected from the group of oxygen, nitrogen, sulphur, phosphorus, sulphone, sulphoxy, amine, amide, urea, urethane, and ester; ester groups; ether groups; amide groups; thioester groups; thioamide groups; urethane groups; and urea groups;

C is a functional group selected from the following formulae III-XLIII




(XVI)
(XVII)
(XVIII)
(XIX)
(XX)
(XXI)
(XXII)
(XXIII)
(XXIV)
(XXV)
(XXVI)
(XXVII)
(XXVIII)
(XXIX)
(XXX)
(XXXI)
(XXXII)
(XXXIII)


(XXXIV)
(XXXV)
(XXXVI)
(XXXVII)
(XXXVIII)
(XXXIX)
(XL)
(XLI)
(XLII)
(XLIII)

wherein R_3 is selected from the group of alk(en)ylene groups having 1-10 carbon atoms which groups may be linear or branched and may optionally contain one or more groups selected from the group of ether, ester, urea, urethane, amide, and amine, and R_4, R_5, R_6, R_7 and R_8 are independently from each other selected from the group of alk(en)yl groups having 1-10 carbon atoms which groups may be linear or branched.

2. A coating composition according to claim 1 wherein X, Y, and Z are methylene.

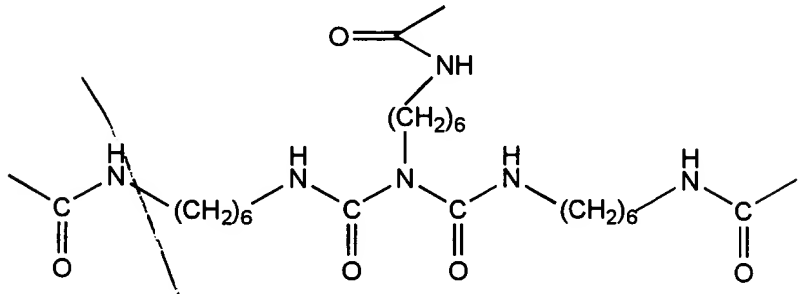
3. A coating composition according to claim 1 wherein one of R_1 and R_2 is a monovalent radical selected from the group of linear or branched alk(en)yl groups having 1-20 carbon atoms.

4. A coating composition according to claim 3 wherein the monovalent radical is selected from the group of methyl and ethyl.

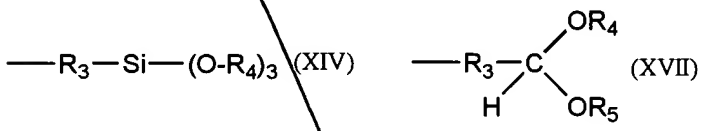
5. A coating composition according to claim 3 wherein the other of R_1 and R_2 is $-O-C_{1-10}-$.

6. A coating composition according to claim 1 wherein B is derived from an organic polyisocyanate compound.

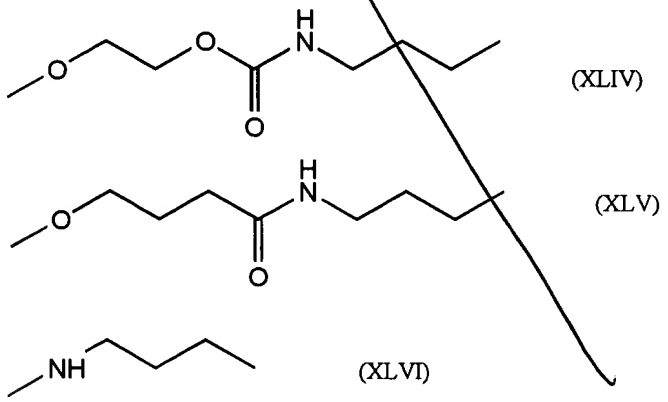
7. A coating composition according to claim 6 wherein the organic polyisocyanate is the biuret of hexamethylene diisocyanate and B has the following chemical structure



8. A coating composition according to claim 1 wherein C is selected from the formulae XIV and XVII



9. A coating composition according to claim 8 wherein R_4 and R_5 are methyl or ethyl and R_3 is a group selected from the following formulae XLIV-XLVI



10. A coating composition according to claim 1 wherein the coating composition comprises a second compound comprising at least two hydroxyl-reactive groups selected from the group of isocyanate, epoxy,

acetal, carboxyl, anhydride, and alkoxy silane groups, or the second compound is an amino resin.

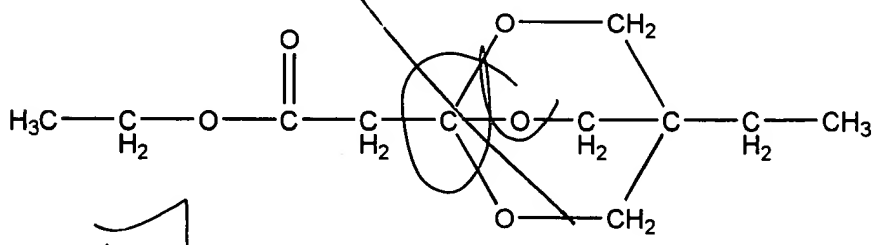
11. A coating composition according to claim 10, wherein the hydroxyl-reactive compound is an aliphatic, cycloaliphatic or aromatic compound comprising at least two isocyanate groups or adducts thereof.

12. A coating composition according to claim 11, wherein the second compound is an isocyanurate.

13. A process for curing a coating composition according to claim 1 wherein the latent hydroxyl groups of the bicyclo-orthoester groups are deblocked in the presence of water, optionally in the presence of a first catalyst, and reacted with the hydroxyl-reactive groups of the first and/or second compound, optionally in the presence of a second catalyst.

14. A process for the preparation of a compound comprising at least one BOE group and at least one other functional group in which a compound having at least one corresponding oxetane group is converted in the presence of a catalytic amount of dibutyl tin oxide at a temperature above 180°C.

15. A process according to claim 14 wherein the compound prepared is



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